Research paper

INDIA'S MANUFACTURING EXPORTS: ISSUES & CHALLENGES

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With the liberalisation and globalisation of the Indian economy, India's share in the world export has increased, at present India enjoys 14 ranks (as per WTO-world trade report 2013) which was 31 in 2000. The export value of 293 (\$billion) and 2% share in total world exports has improved from 42.3(\$billion) and 0.7% share in world exports in 2000. There has been a shift in the India's export basket. The share of manufacturing sector has been dominating the export basket of India but in recent time it has shown a decline. Share of manufacturing sector which was once 80% in 2000 has shown a declining trend and now reached the all-time low of 61% for the year 2012. So far the sectoral contribution is considered all the sectors under manufacturing exports have shown declining trend except engineering goods whose share has increased from 28% in 2005 has reached 35% in 2012.

The paper deals with the time series analysis of the share of manufacturing sector in total exports, secondly sectoral composition of manufacturing exports and finally the factors that have resulted in the decline of the share of manufacturing sector in total exports and the steps needed to boost it. This paper is based on the secondary data, the source that have been consulted are the annual report from the RBI, world trade report by WTO, for sectoral export data ministry of commerce website is consulted. The period of study is 1997-2012.

Keywords: Globalisation, Manufacturing Sector, Exports, Composition.

Introduction

"India's appeal as a global manufacturing destination is not yet solidified. The country dropped two spots in current 2013 GMCI rankings, falling from second to fourth since 2010. However, the decline may be short-lived as executives felt the country would regain its former position and once again become the world's second most competitive manufacturing nation in the next five years, behind China." **GMCI-2013, Deloitte**.

The above statement shows that India s competitiveness in the global market with respect to the trade in manufactured good s had deteriorated.

Objectives

Following are the objectives of this paper in the light of the Indian manufactured good exports:

- 1. Time series analysis of the share of Indian manufacturing sector in total exports.
- 2. Sectoral composition of manufacturing exports.
- 3. Factors resulting in the decline of the share of manufacturing sector in total exports and the steps needed to boost it.

Methodology

This paper is based on the secondary data, the source that have been consulted are the annual report from the RBI, world trade report by WTO, World Integrated trade Solution website, for sectoral export data ministry of commerce website is consulted. The period of study is 1997-2012.

Analysis

Exports & Product Share

Table 1.1(a) shows the increase in the exports and category wise increase in export in dollar terms. Column five of the table shows that with just 33469.7 U.S \$ million in 1996-97 total exports have grown by ten times over the period of study and reached 304623.5 U. \$ million by the end of 2012. Exports crossed the one lakhs marks in the year 2005-06 and the amount reached 103090.50 U.S \$ million. With respect to the different category of product exported, they are classified under primary products, manufactured goods, petroleum products and others. Export

of primary products have increased by almost five time from 8035.10 U.S \$ million to 45574.00 U.S \$ million for the same period, whereas manufactured goods export increased by eight times from 24613.40 U.S \$ million, petroleum products export increased by one twenty time from 481.80 to 55603.50 and export of other commodities increased by fifty times from 339.40 to 16661.70.

Table1.1(b) shows the change in the share of the different category in the total export for the period 1997-2012. From the table it is clear that manufactured goods have always dominated the export basket of India and at the end of 1997 share stood at 73.54% of the total exports followed by primary products. Over the period of time the share of manufactured goods have lost there importance and by the end of 2012 the share came down to 61.32%. In the 16 year duration the it first increased for three years following 1997 and then onwards it start to fall, for the year 1999-2000 the share was maximum as it reached all time high of 80.70%. The export of primary product also show the same trend and it had been falling since 1997. For the first three years following 1997 it fall and then onwards it had been around 14%-15%. The other two category i.e. petroleum and other have shown a considerable improvement with the share of these two category is increasing and the share of petroleum product have reached all time high of 18.25% for the year 2012.

Table 1.1(b) also shows the annual growth rate in the total exports and different category of the export from India to the world. Annual growth rate of the total exports had been positive for all the years except for three years. Export growth rate did not follow any trend for some times there is increasing trend whereas for some years it follows the diminishing trend. On the basis of the maximum growth annual growth for individual category it can be seen that for primary products it is 39.96 for 2007-08, for manufactured products it is 37.17 for the year 2010-11, for petroleum products its 4706.43% for 2000-01 and for others its 130% for 2007-08.

If the Compound Annual Growth Rate (CAGR) is considered then for the period of study the total exports have grown at the rate of 16%. In category wise CAGR petroleum products have the maximum growth of 37% followed by others. With respect to primary and manufactured products the growth rate has been 12% and 14% respectively.

Manufactured Goods Exports & Share of Different Products

Table 1.2(a) of the table shows the increase in the manufactured exports and its sub-category in U.S \$ terms. Manufactured exports have increased form just 24613.40 U.S \$ million in 1997 to 186784.20 U.S \$ million in 2012, almost by eight times.

Different product category of manufactured product exports comprises of leather and manufactures, chemicals and related products, engineering goods, textiles and textile products, gems and jewellery, handicrafts (excluding handmade carpets) and othe manufactured goods. In total there are six categories of products that form part of manufactured goods export excluding other manufactured goods. Performance of all the categories had been very impressive except for handicraft which had increased by just .49 times. In money terms maximum increase has been in case of engineering goods which shows that it increased by 13.52 times followed by gems and jewellery (9.63) and chemicals and related products (9.50).

Table 1.2(b) shows the share of different category in total manufactured goods. A close look at table revels that the share of three products- chemicals and related products, engineering goods and gems and jewellery have shown increased in there share in total exports whereas the share of other category have decreased. In 1997 the major share was held by textiles and textile products(35.09) followed by engineering goods (20.16) and gems and jewellery(19.31). In the period of sixteen years the share of engineering goods have show a considerable increased and by the end of 2012 it reached to 35.92 followed by gems and jewellery (25.11) and chemicals and related products(19.91). The products that have shown no improvement/decreased share are other goods and handicrafts followed by other goods and leather and manufactures.

Table 1.2(c) shows the annual growth rate in the export of different category of manufactured goods. The growth rate does not show any trend and had a mix of upward and downward trend. The overall performance of manufactured goods shows that it had grown positively except for years-1999(-2.84), 2002(-2.81) and 2010 (-6.47). the maximum growth is for the year 2010-11 (37.17) followed by 2004-05 (25.24) and 2007-08 (21.27).

Category wise annual growth rate shows that maximum growth has been registered by engineering goods for the year 2010-11(51.91) followed by gems and jewellery for the year 2008-09(42.06). In terms of the negative growth rate it has been found that product that have shown maximum negative growth are handicraft (-40.77) for the year 2008-09 followed by 2003-04(36.37) and 2009-10 (25.32).

On the basis of compound annual growth rate the overall CAGR for the manufactured goods is 14% for the period under study. On individual basis the CAGR had been very impressive for engineering goods (19%) followed by chemicals and related products (16%) and gems and jewellery(16%). Product such as handicraft had the negative CAGR of -5%. It can be seen that engineering goods, chemicals and related products, gems and jewellery and others have CAGR above the CAGR of manufactured goods.

Test of Correlation

Export of Principal Commodities and total Exports

Table 1.3(a) shows the result of the test of correlation that has been performed in order to find out the correlation between the growth in principal export and total export for the period of 15 years form 1997-2012. Vale of the r is positive in all the case which means that as the exports increases there is positive impact on the sub-category of exports. It is very high in case of manufactured goods (.96) followed by primary (.77) and others (.40).

Manufactured Exports and its Sub-Sectors

Table 1.3(b) shows the correlation between manufactured exports and its sub-category. The test confirms the positive relation between the two and the value of r is maximum for engineering goods (.93) followed by chemicals and related products (.82) and textile and textile products (.79).

Conclusion and Future Prospects

In the research done by Deloitte and US Council on Competitiveness, Aranca Research, following factors have been identified which affect the export performance of the manufacturing sector .They are as follows:

- 1. Talent-driven innovation
- 2. Cost of labour and materials
- 3. Energy cost of policies
- 4. Economic, trade, financial and tax systems
- 5. Quality of physical infrastructure
- 6. Government investments in manufacturing and innovation
- 7. Legal and regulatory system
- 8. Supplier network
- 9. Local business dynamics

Quality and availability of healthcareOn the basis of the report of the working group on "Boosting Manufacturing Export", (2012-17) by Ministry of Commerce and Industries following measures have been found that affect the india manufacturing exports. These measures are grouped into two heads technical and non-technical measures. Under technical measures- sanitary and phytosanitary measures (SPS0 and technical barrier to trade (TBT) are included and in case of non-technical barrier measures such as-pre-shipment inspection and other formalities, price control measures, licenses, quotas, prohibition and other quality control measures, charge, taxes and other para-tariff measures, finance measures, trade- related investment measures, distribution restrictions, restriction on post-sales services, subsidies, government procurement, intellectual property and finally the rule of origin. For export related the working group mentioned exported subsidies as the important measure.

Although at present Indian government has formulated rules and regulation with respect to all the areas but still lot need to be done. The major factor that is hampering the trade of manufacturing export from India at present is SPS and TBT along with intellectual property. In the name of public health each year large number of consignment have to returned to India.

Thus from the above study it is clear that once India export basket dominated by manufacturing sector has now seen a reduced share in the total exports and with the sub-category of the manufacturing exports products such as chemicals and related products, engineering goods and gems and jewellery have seen a considerable improvement in their share of total exports. The products that have seen reduction in there share are leather, textile products and handicraft products, within these category the maximum loss has occurred to textile and clothing product.

With the reduction in the share of manufacturing exports and losing its market to other countries India had lost is competitiveness with respect to manufacturing exports. On the basis of the report published by Deloitte-Global Manufacturing Competitive Index for 2013, has shown that India has moved down to fourth position from its previous position of second in three years' time.

Therefore then need of the time is to have new rules and regulation that may be in consonance with the world rule and regulation. Major areas of work lie with respect to SPS and TBT which has not emerged as the major NTB tool to restrict the flow of goods. Apart from it domestic infrastructure and technological development have to be pushed at a high speed to take the advantage of the competitiveness.

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Liberalization. IMF Working Paper, WP/11/163	3.				

Commodity / Year	Primary Products	Manufactured Goods	Petroleum Products	Others (All Commodities)	Total Exports
1997	8035.10	24613.40	481.80	339.40	33469.70
1998	7687.30	26546.60	352.80	419.80	35006.40
1999	6927.90	25791.50	89.40	410.00	33218.70
2000	6524.20	29714.40	38.90	544.90	36822.40
2001	7126.20	34335.20	1869.70	1229.20	44560.30
2002	7163.60	33369.70	2119.10	1174.30	43826.70
2003	8706.10	40244.50	2576.50	1192.30	52719.40
2004	9901.80	48492.10	3568.40	1880.30	63842.60
2005	13553.30	60730.70	6989.30	2262.60	83535.90
2006	16377.40	72562.80	11639.60	2510.70	103090.50
2007	19685.90	84920.40	18634.60	3173.20	126414.10
2008	27551.90	102978.80	28363.10	4010.50	162904.30
2009	25335.40	123148.90	27547.00	9263.70	185295.00
2010	26396.50	115180.70	28192.00	8982.20	178751.40
2011	32844.70	157993.90	41480.00	18817.70	251136.20
2012	45574.00	186784.20	55603.50	16661.70	304623.50

Source: RBI Handbook of Statistics

	Table 1.1(b): Sector wise Share and Annual Growth										
Commo	Share in	Merchandi	se Exports		Annual Growth Rate and CAGR(1997-2012)						
dity / Year	primary Products	Manuf. Goods	Petroleu m Products	Oth ers	primary Products	Manuf. Goods	Petroleu m Products	Others	Total Exports		
1997	24.01	73.54	1.44	1.01							
1998	21.96	75.83	1.01	1.20	-4.33	7.85	-26.77	23.69	4.59		
1999	20.86	77.64	0.27	1.23	-9.88	-2.84	-74.66	-2.33	-5.11		
2000	17.72	80.70	0.11	1.48	-5.83	15.21	-56.49	32.90	10.85		
2001	15.99	77.05	4.20	2.76	9.23	15.55	4706.43	125.58	21.01		
2002	16.35	76.14	4.84	2.68	0.52	-2.81	13.34	-4.47	-1.65		
2003	16.51	76.34	4.89	2.26	21.53	20.60	21.58	1.53	20.29		
2004	15.51	75.96	5.59	2.95	13.73	20.49	38.50	57.70	21.10		
2005	16.22	72.70	8.37	2.71	36.88	25.24	95.87	20.33	30.85		
2006	15.89	70.39	11.29	2.44	20.84	19.48	66.53	10.97	23.41		
2007	15.57	67.18	14.74	2.51	20.20	17.03	60.10	26.39	22.62		
2008	16.91	63.21	17.41	2.46	39.96	21.27	52.21	26.39	28.87		
2009	13.67	66.46	14.87	5.00	-8.04	19.59	-2.88	130.99	13.74		
2010	14.77	64.44	15.77	5.02	4.19	-6.47	2.34	-3.04	-3.53		
2011	13.08	62.91	16.52	7.49	24.43	37.17	47.13	109.50	40.49		

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2012	14.96	61.32	18.25	5.47	38	.76 18	.22	34.05	-11.46	21.30
	CAGR(1	997-2012)			0	.12 0	.14	0.37	0.30	0.16
Source: (Computed from Ta	ble 1.1(a)			1	1			11	
		Table 1.2(a): N	Manufactu	red Ex	xports in	value term	s(U.	S Million)		
Commo dity / Year	Leather and Manufactures	Chemicals and Related Products	Engineer ng Goods	s an Te	xtile d xtile oducts	Gems and Jewellery	(e H	andicrafts xcluding andmade arpets)	Other Manufact ured Goods	Manufacture d Goods
1997	1605.80	3912.80	4962.70	86	35.80	4752.70	4′	75.70	267.90	24613.40
1998	1656.70	4396.30	5336.20	90	50.40	5345.50	52	25.90	235.60	26546.60
1999	1660.70	4009.20	4463.90	88	66.30	5929.30	6	33.10	228.90	25791.50
2000	1590.20	4706.50	5152.10	98	22.10	7502.30	6	68.60	272.60	29714.40
2001	1944.40	5885.90	6818.60	11	285.00	7384.00	6	61.50	355.80	34335.20
2002	1910.10	6051.80	6957.80	10	206.50	7306.30	54	49.00	388.30	33369.70
2003	1848.30	7455.30	9033.00	11	617.00	9029.90	7	85.30	475.60	40244.50
2004	2163.00	9445.90	12405.40) 12	791.50	10573.30	4	99.70	613.30	48492.10
2005	2421.60	12443.70	17348.30) 13	555.30	13761.80	3'	77.40	822.60	60730.70
2006	2697.70	14769.50	21718.80) 16	402.10	15529.10	4	62.00	983.70	72562.80
2007	3016.70	17335.40	29567.20) 17	373.20	15977.00	4.	38.00	1213.00	84920.40
2008	3502.50	21193.80	37365.20) 19	425.70	19678.70	5	08.20	1304.60	102978.80
2009	3556.00	22708.10	47285.60) 20	016.40	27955.20	3	01.00	1326.70	123148.90
2010	3361.10	22908.80	38271.30) 19	853.00	28996.30	2	24.80	1565.50	115180.70
2011	3910.60	28871.00	58137.40) 24	225.00	40476.10	2	56.90	2116.90	157993.90
2012	4788.50	37190.50	67093.10) 27	998.00	46900.80	2	33.50	2580.00	186784.20
Source: F	RBI Handbook of S	Statistics								

	Table 1.2(b) Category wise share in Manufactured Exports									
Commodity / Year	Leather and Manu.	Chem. and Related Products	Engineering Goods	Textile and Textile Products	Gems and Jewellery	Handicrafts (exc. Hdmd Carpets)	Ot. Manuf Goods			
1997	6.52	15.90	20.16	35.09	19.31	1.93	1.09			
1998	6.24	16.56	20.10	34.09	20.14	1.98	0.89			
1999	6.44	15.54	17.31	34.38	22.99	2.45	0.89			
2000	5.35	15.84	17.34	33.06	25.25	2.25	0.92			
2001	5.66	17.14	19.86	32.87	21.51	1.93	1.04			
2002	5.72	18.14	20.85	30.59	21.90	1.65	1.16			
2003	4.59	18.53	22.45	28.87	22.44	1.95	1.18			
2004	4.46	19.48	25.58	26.38	21.80	1.03	1.26			
2005	3.99	20.49	28.57	22.32	22.66	0.62	1.35			
2006	3.72	20.35	29.93	22.60	21.40	0.64	1.36			
2007	3.55	20.41	34.82	20.46	18.81	0.52	1.43			

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2008	3.40	20.58	36.28	18.86	19.11	0.49	1.27			
2009	2.89	18.44	38.40	16.25	22.70	0.24	1.08			
2010	2.92	19.89	33.23	17.24	25.17	0.20	1.36			
2011	2.48	18.27	36.80	15.33	25.62	0.16	1.34			
2012	2.56	19.91	35.92	14.99	25.11	0.13	1.38			
Source: Com	Source: Compiled from Table 1.2(a)									

Commodity / Year	Leather and Manu.	Chem. & Related Products	Engg. Goods	Textile and Textile Products	Gems & Jewel.	Handicrafts (exc. Hdmd Carpets)	Ot. Manuf Goods	Manuf. Goods
1998	3.17	12.36	7.53	4.80	12.47	10.55	-12.06	7.85
1999	0.24	-8.81	-16.35	-2.03	10.92	20.38	-2.84	-2.84
2000	-4.25	17.39	15.42	10.78	26.53	5.61	19.09	15.21
2001	22.27	25.06	32.35	14.89	-1.58	-1.06	30.52	15.55
2002	-1.76	2.82	2.04	-9.56	-1.05	-17.01	9.13	-2.81
2003	-3.24	23.19	29.83	13.82	23.59	43.04	22.48	20.60
2004	17.03	26.70	37.33	10.11	17.09	-36.37	28.95	20.49
2005	11.96	31.74	39.84	5.97	30.16	-24.47	34.13	25.24
2006	11.40	18.69	25.19	21.00	12.84	22.42	19.58	19.48
2007	11.82	17.37	36.14	5.92	2.88	-5.19	23.31	17.03
2008	16.10	22.26	26.37	11.81	23.17	16.03	7.55	21.27
2009	1.53	7.15	26.55	3.04	42.06	-40.77	1.69	19.59
2010	-5.48	0.88	-19.06	-0.82	3.72	-25.32	18.00	-6.47
2011	16.35	26.03	51.91	22.02	39.59	14.28	35.22	37.17
2012	22.45	28.82	15.40	15.57	15.87	-9.11	21.88	18.22
CAGR	0.08	0.16	0.19	0.08	0.16	-0.05	0.16	0.14

Table 1.3(a): Results of Test of Correlation with Total Exports (1997-2012)							
	Primary Products	Manufactured Goods	Petroleum Products	Others			
Value of r	0.77	0.96	0.12	0.40			

Source: Computed from Table 1.1(b)

	Table 1.3(b): Results of test of Correlation with Manufactured Exports(1997-2012)										
	Leather and Manufactures	Chemicals and Related Products	Engineering Goods	Textile and Textile Products	Gems and Jewellery	Handicrafts (excluding Handmade Carpets)	Other Manufactured Goods				
Value of r	0.59	0.82	0.93	0.79	0.68	0.13	0.56				
Source:	Source: Computed form Table 1.2(c)										